PIXELSTORM™

Blizzard Lighting, LLC
www.blizzardlighting.com
Waukesha, WI USA
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1. GETTING STARTED

What's In The Box?

- 1 x PixelStorm™ Professional LED Fixture
- This Lovely User Manual

Getting It Out Of The Box

Congratulations on purchasing one of the coolest LED fixtures anywhere! Now that you're the proud owner of a PixelStorm™ (or hopefully, MORE!), you should carefully unpack the box and check the contents to ensure that all parts are present and in good condition. If anything looks as if it has been damaged in transit, notify the shipper immediately and keep the packing material for inspection. Again, please save the carton and all packing materials. If a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

Powering Up!

All fixtures must be powered directly off a switched circuit and **cannot be run off a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel is used solely for a 0% to 100% switch**.

AC Voltage Switch - Not all fixtures have a voltage select switch, so please verify that the fixture you receive is suitable for your local power supply. See the label on the fixture or refer to the fixture's specifications chart for more information. A fixture's listed current rating is its average current draw under normal conditions. Check the fixture or device carefully to make sure that if a voltage selection switch exists that it is set to the correct line voltage you will use.

Warning! ***Verify that the voltage select switch on your unit matches the line voltage applied. Damage to your fixture may result if the line voltage applied does not match the voltage indicated on the voltage selector switch. All fixtures must be connected to circuits with a suitable Ground (Earthing).***

Getting A Hold Of Us

If something is wrong, just give us a call or send an email. We'll be happy to help, honest.

Blizzard Lighting
W220 N1531 Jericho Ct. Ste E
Waukesha, WI 53186 USA
www.blizzardlighting.com
414-395-8365

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SAFETY INSTRUCTIONS

Please read these instructions carefully. They include important information about the installation, usage and maintenance of this product.

- Please keep this User Guide for future use. If you sell the unit to someone else, be sure that they also receive this User Guide.

- ALWAYS make sure that you are connecting to the proper voltage, and that the line voltage you are connecting to is not higher than that stated on the decal or rear panel of the fixture.

- This product is intended for indoor use only.

- To prevent risk of fire or shock, do not expose fixture to rain or moisture.

- Make sure there are no flammable materials close to the unit while operating.

- The unit must be installed in a location with adequate ventilation, at least 20in (50cm) from adjacent surfaces. Be sure that no ventilation slots are blocked.

- ALWAYS disconnect from the power source before servicing or replacing fuse and be sure to replace with same fuse size and type.

- ALWAYS secure fixture using a safety chain. NEVER carry the fixture by its cord. Use its carrying handles.

- DO NOT operate at ambient temperatures higher than 104°F (40°C).

- In the event of a serious operating problem, stop using the unit immediately. NEVER try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type spare parts.

- NEVER connect the device to a dimmer pack.

- Make sure the power cord is never crimped or damaged.

- Never disconnect the power cord by pulling or tugging on the cord.

- Avoid direct eye exposure to the light source while it is on.

Caution! There are no user serviceable parts inside the unit. Do not open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please contact Blizzard Lighting at support@blizzardlighting.com.

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2. MEET THE PIXELSTORM™

MAIN FEATURES:

- RGB color mixing from 9*3-watt RGB Tri-Color (3-in-1) LEDs
- Ultra-rugged all-metal enclosure with metal mounting bracket.
- 3-pin AND 5-pin DMX connectors
- Multi-mode and user-programmable 16-bit dimmer & strobe
- User selectable 3 (RGB) 4/7/16/34 DMX channel operation
- 13 user-definable built-in programs/colors in standalone mode
- Easy to use LED control panel
- Rugged all-metal case with metal mounting bracket
- USITT DMX-512
- LED 4-button control panel
- PowerCON® compatible power in/out connectors

DMX Quick Reference (34/16-Channel Mode)

Ch.	34-Channel	Ch.	16-Channel
1	Dimmer (0% <--> 100%)	1	Dimmer (0% <--> 100%)
2	Strobe (slow <--> fast)	2	Strobe (slow <--> fast)
3	Static colors + Built-in programs	3	Static colors + Built-in programs
4	Speed (slow <--> fast)	4	Speed (slow <--> fast)
5	Red Intensity (0% <--> 100%)	5	Red Intensity (0% <--> 100%)
6	Green Intensity (0% <--> 100%)	6	Green Intensity (0% <--> 100%)
7	Blue Intensity (0% <--> 100%)	7	Blue Intensity (0% <--> 100%)
8-34	Individual R/G/B pixel color adjustment	8-10	Pixels 1-3 - R/G/B (0% <--> 100%)
---	---	11-13	Pixels 4-6 - R/G/B (0% <--> 100%)
---	---	14-16	Pixels 7-9 - R/G/B (0% <--> 100%)

DMX Quick Reference (7/4-Channel Mode)

Ch.	7-Channel	Ch.	4-Channel
1	Dimmer (0% <--> 100%)	1	Dimmer (0% <--> 100%)
2	Strobe (slow <--> fast)	2	Strobe (slow <--> fast)
3	Static colors + Built-in programs	3	Static colors + Built-in programs
4	Speed (slow <--> fast)	4	Speed (slow <--> fast)
5	Red Intensity (0% <--> 100%)	---	---
6	Green Intensity (0% <--> 100%)	---	---
7	Blue Intensity (0% <--> 100%)	---	---

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Figure 1: The PixelStorm™ Pin-Up Picture

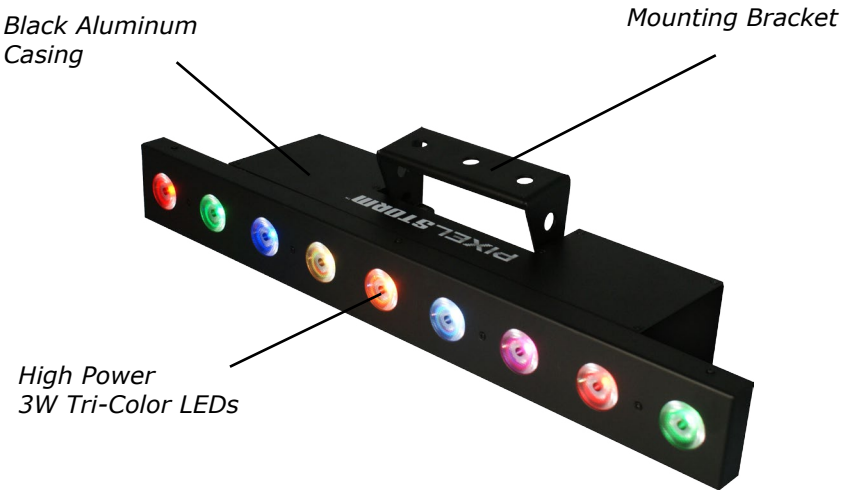
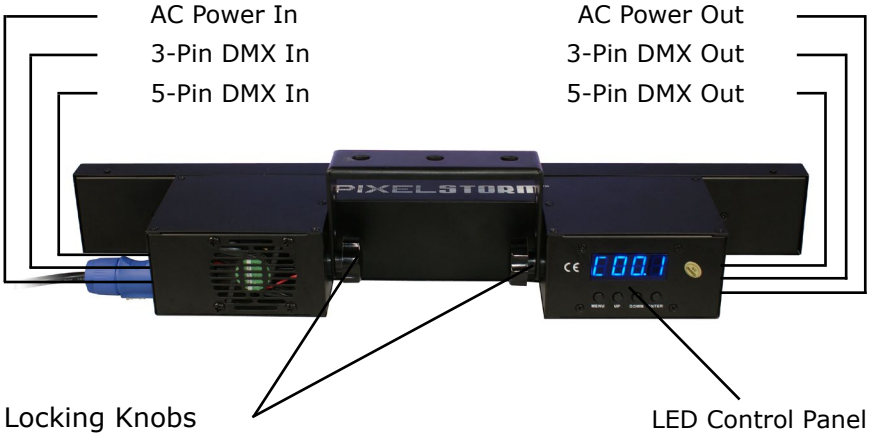


Figure 2: The Rear Connections



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3. SETUP

Before replacing a fuse, disconnect power cord. ALWAYS replace with the same type and rating of fuse.

Fuse Replacement

CAUTION! The PixelStorm™ utilizes a high-output switch-mode power supply with an internal fuse. Under normal operating conditions, the fuse should not require replacement. The fuse is field replaceable, however it is an advanced procedure suited to qualified individuals. Should your PixelStorm™ fuse require replacement, please contact Blizzard Lighting for instructions, or to return your unit for service.

Connecting A Bunch of PixelStorm™ Fixtures

You will need a serial data link to run light shows using a DMX-512 controller or to run shows on two or more fixtures set to sync in master/slave operating mode. The combined number of channels required by all the fixtures on a serial data link determines the number of fixtures the data link can support.

Fixtures on a serial data link must be daisy chained in one single line. Also, connecting more than 32 fixtures on one serial data link without the use of a DMX optically-isolated splitter may result in deterioration of the digital DMX signal.
The maximum recommended cable-run distance is 500 meters (1640 ft). The maximum recommended number of fixtures on a serial data link is 32 fixtures.

Data/DMX Cabling

To link fixtures together you'll need data cables. You should use data-grade cables that can carry a high quality signal and are less prone to electromagnetic interference.

For instance, Belden© 9841 meets the specifications for EIA RS-485 applications. Standard microphone cables will "probably" be OK, but note that they cannot transmit DMX data as reliably over long distances. In any event, the cable should have the following characteristics:

2-conductor twisted pair plus a shield
Maximum capacitance between conductors – 30 pF/ft.
Maximum capacitance between conductor & shield – 55 pF/ft.
Maximum resistance of 20 ohms / 1000 ft.
Nominal impedance 100 – 140 ohms

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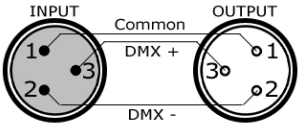
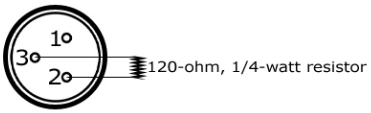
Cable Connectors

Cables must have a male XLR connector on one end and a female XLR connector on the other end. (Duh!)



A Word on Termination: DMX is a resilient communication protocol, however errors still occasionally occur. Termination reduces signal errors, and therefore best practices include use of a terminator in all circumstances. If you are experiencing problems with erratic fixture behavior, especially over long signal cable runs, a terminator may help improve performance.

To build your own DMX Terminator: Obtain a 120-ohm, 1/4-watt resistor, and wire it between pins 2 & 3 of the last fixture. They are also readily available from specialty retailers.



CAUTION: Do not allow contact between the common and the fixture's chassis ground. Grounding the common can cause a ground loop, and your fixture may perform erratically. Test cables with an ohm meter to verify correct polarity and to make sure the pins are not grounded or shorted to the shield or each other.

3-Pin??? 5-Pin??? Huh?!?

If you use a controller with a 5 pin DMX output connector, you will need to use a 5 pin to 3 pin adapter. They are widely available over the internet and from specialty retailers. If you'd like to build your own, the chart below details a proper cable conversion:

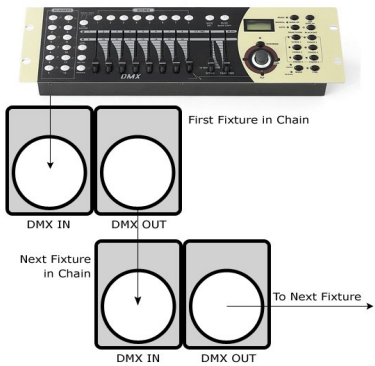
Conductor	3-Pin Female (Output)	5-Pin Male (Input)
Ground/Shield	Pin 1	Pin 1
DMX Data (-)	Pin 2	Pin 2
DMX Data (+)	Pin 3	Pin 3
Not Used.	No Connection.	No Connection.
Not Used.	No Connection.	No Connection.

Take It To The Next Level: Setting Up DMX Control

Step 1: Connect the male connector of the DMX cable to the female connector (output) on the controller.

Step 2: Connect the female connector of the DMX cable to the first fixture's male connector (input). *Note:* It doesn't matter which fixture address is the first one connected. We recommend connecting the fixtures in terms of their proximity to the controller, rather than connecting the lowest fixture number first, and so on.

Step 3: Connect other fixtures in the chain from output to input as above. Place a DMX terminator on the output of the final fixture to ensure best communication.



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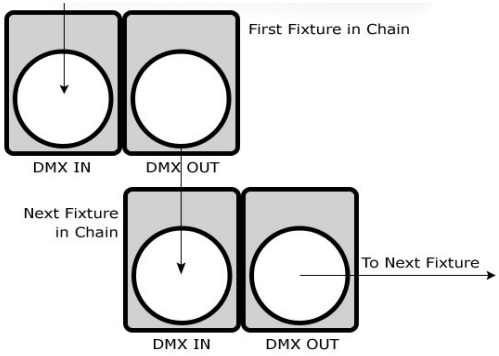
Fixture Linking (Master/Slave Mode)

1. Connect the (male) 3 pin connector side of the DMX cable to the output (female) 3 pin connector of the first fixture.
2. Connect the end of the cable coming from the first fixture which will have a (female) 3 pin connector to the input connector of the next fixture consisting of a (male) 3 pin connector. Then, proceed to connect from the output as stated above to the input of the following fixture and so on.



A quick note: Often, the setup for Master-Slave and Standalone operation requires that the first fixture in the chain be initialized for this purpose via either settings in the control panel or DIP-switches. Secondarily, the fixtures that follow may also require a slave setting.

Check the "**Operating Adjustments**" section in this manual for complete instructions for this type of setup and configuration.

Mounting & Rigging

This fixture may be mounted in any SAFE position provided there is enough room for ventilation.

It is important never to obstruct the fan or vents pathway. Mount the fixture using a suitable "C" or "O" type clamp. The clamp should be rated to hold at least 10x the fixture's weight to ensure structural stability. Do not mount to surfaces with unknown strength, and ensure properly "rated" rigging is used when mounting fixtures overhead.

Adjust the angle of the fixture by loosening both knobs and tilting the fixture. After finding the desired position, retighten both knobs.

- When selecting installation location, take into consideration lamp replacement access (if applicable) and routine maintenance.
- Safety cables MUST ALWAYS be used.
- Never mount in places where the fixture will be exposed to rain, high humidity, extreme temperature changes or restricted ventilation.

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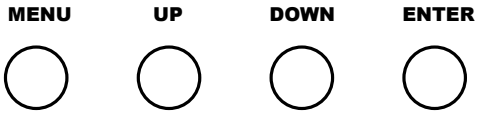
4. OPERATING ADJUSTMENTS

The Control Panel

All the goodies and different modes possible with the PixelStorm™ are accessed by using the control panel on the back of the fixture. There are 4 control buttons below the LED display which allow you to navigate through the various control panel menus.



<MENU>

Used to access the menu or return to a previous menu option.

<UP>

Scrolls through menu items and numbers in ascending order.

<DOWN>

Scrolls through menu items and numbers in descending order.

<ENTER>

Used to select and store the current menu option.

The Control Panel LED Display shows the menu items listed on the **Control Panel Menu Structure** on page 11. Use the **<UP>** and **<DOWN>** buttons to navigate your choices. To edit a setting, push the **<ENTER>** button, then use the **<UP>** and **<DOWN>** buttons again to scroll through your options. Push the **<MENU>** button to confirm and return to the main/current menu option.

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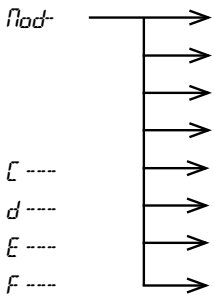
Control Panel Menu Structure

Note: Pushing enter will scroll through the digits. Also, the blinking dot will always be to the RIGHT of the digit you are editing.



To choose 4 channel DMX mode

To choose 7 channel DMX mode

To choose 16 channel DMX mode

To choose 34 channel DMX mode

Sets the DMX starting address in 4ch mode

Sets the DMX starting address in 7ch mode

Sets the DMX starting address in 16ch mode

Sets the DMX starting address in 34ch mode

Auto Mode

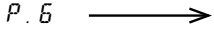
1.) Programs - The first two digits on the LED display represent its built-in programs 01-14.

2.) Sub-option 1 - The third digit on the LED display allows you to change the available color(s).

3.) Sub-option 2 - The fourth digit on the LED display allows you to adjust the speed.

Digits 1 & 2 - Program	Digit 3 - Colors	Digit 4 - Speed	What it does
01.--	0 - 9	0 - 9 (Fast <--> Slow)	0 = Blackout 1 to 7 = Solid Colors 8 = Color Snap 1 9 = Color Snap 2
02.--	1 - 8	0 - 9 (Fast <--> Slow)	Auto chase effect #2
03.--	1 - 8	0 - 9 (Fast <--> Slow)	Auto chase effect #3
04.--	1 - 8	0 - 9 (Fast <--> Slow)	Auto chase effect #4
05.--	1 - 8	0 - 9 (Fast <--> Slow)	Auto chase effect #5
06.--	1 - 8	0 - 9 (Fast <--> Slow)	Auto chase effect #6
07.--	1 - 8	0 - 9 (Fast <--> Slow)	Auto chase effect #7
08.--	1 - 8	0 - 9 (Fast <--> Slow)	Auto chase effect #8
09--	1 - 8	0 - 9 (Fast <--> Slow)	Auto chase effect #9
10.--	1 - 8	0 - 9 (Fast <--> Slow)	Auto chase effect #10
11.--	1 - 8	0 - 9 (Fast <--> Slow)	Auto chase effect #11
12.--	1 - 8	0 - 9 (Fast <--> Slow)	Auto chase effect #12
13.--	1 - 8	0 - 9 (Fast <--> Slow)	Auto chase effect #13
14. -	---	---	All chases #2-13 Changes saved in 2-13 will affect #14

Example - If you wanted to use auto program 2, but wanted to adjust the color and the speed... you would use the **<UP/DOWN>** buttons to navigate to **"02.--"** and push the **<ENTER>** button. Now you are running program #2, and the flashing dot has moved to the right of the 3rd digit (color change). You would now use the **<UP/DOWN>** to scroll through the options of the third digit to find any available color options you like. Then, pushing **<ENTER>** again moves the flashing dot to the right of the 4th digit (speed). So now in the same manner as before, you would then use the **<UP/DOWN>** buttons to adjust the options of the fourth digit (0-9). Finally, pushing **<ENTER>** once more ends editing of the program. Program #14 is not editable, it cycles through all of the previous chase effects.



Flips the display. **<ENTER>**, **<UP/DOWN>**, **<ENTER>**

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DMX Mode

Allows the unit to be controlled by any universal DMX controller.

1.) Depending on what channel mode you would like to use, you first need to choose one of the four DMX channel mode configurations:

Mod 1 - To choose 4 channel DMX mode
Mod2 - To choose 7 channel DMX mode
Mod3 - To choose 16 channel DMX mode
Mod4 - To choose 34 channel DMX mode

Use the **<UP/DOWN>** buttons to scroll to Mod - and push the **<ENTER>** button. Then use the **<UP/DOWN>** buttons to scroll to your choice of 4/7/16 or 31 channel mode, then hit the **<ENTER>** button.

2.) Then depending on which DMX channel mode you entered, you can set the DMX starting address. You'll notice that the first letter in this setting changes per mode:

C001 - C512 - To set the starting address of Mode 1 (4ch)
d001 - d512 - To set the starting address of Mode 2 (7ch)
E001 - E512 - To set the starting address of Mode 3 (16ch)
F001 - F512 - To set the starting address of Mode 4 (34ch)

Use the **<UP/DOWN>** buttons to scroll to C ---, d ---, E ---, or F --- and push the **<ENTER>** button. Then use the **<UP/DOWN>** buttons to scroll to your choice (1-512), then hit the **<ENTER>** button.

Master/Slave Modes:

Allows a single or Master/Slaved units to run factory installed programs at user selectable speeds.

1. The first fixture in the DMX chain will serve as the master unit. To set other fixtures in line to slave mode, make sure these fixtures have a starting DMX address that is set to match that of the master unit.

For example, if your master fixture has the DMX starting address of C001, all other fixtures linked in the DMX chain must match that DMX starting address of C001. These fixtures will now function exactly as the master does.

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DMX Values In-Depth (34-Channel Mode)

Channel	Value	What It Does
1	009 <--> 255	Dimmer (0% <--> 100%)
2	010 <--> 249	Strobe (0% <--> 100%)
3	000 <--> 009 010 <--> 012 013 <--> 016 017 <--> 020 021 <--> 024 025 <--> 028 029 <--> 032 033 <--> 036 037 <--> 044 045 <--> 048 049 <--> 052 053 <--> 056 057 <--> 060 061 <--> 064 065 <--> 068 069 <--> 072 073 <--> 075 076 <--> 077 078 <--> 079 080 <--> 089 090 <--> 105 106 <--> 121 122 <--> 137 138 <--> 169 170 <--> 185 186 <--> 201 202 <--> 217 218 <--> 233 234 <--> 249 250 <--> 255	No Function Red Green Blue Red+Green Blue+Green Red+Blue R+G+B (White) 7 Color Snap Red Fade In/Out Green Fade In/Out Blue Fade In/Out R+G+B (White) Fade In/Out 7 Color Fade R+G+B (White) Fade/Snap R+G+B (White) Fade In/Out Pixel Effect 1 Pixel Effect 2 Pixel Effect 3 Pixel Effect 4 Pixel Effect 5 Pixel Effect 6 Pixel Effect 7 Pixel Effect 8 Pixel Effect 9 Pixel Effect 10 Pixel Effect 11 Pixel Effect 12 Pixel Effect 13 Blackout
4	000 <--> 255	Speed (Slow <--> Fast)
5	009 <--> 255	Red (0% <--> 100%)
6	009 <--> 255	Green (0% <--> 100%)
7	009 <--> 255	Blue (0% <--> 100%)
8	009 <--> 255	Pixel 1 Red (0% <--> 100%)
9	009 <--> 255	Pixel 1 Green (0% <--> 100%)
10	009 <--> 255	Pixel 1 Blue (0% <--> 100%)
11	009 <--> 255	Pixel 2 Red (0% <--> 100%)
12	009 <--> 255	Pixel 2 Green (0% <--> 100%)
13	009 <--> 255	Pixel 2 Blue (0% <--> 100%)
14	009 <--> 255	Pixel 3 Red (0% <--> 100%)
15	009 <--> 255	Pixel 3 Green (0% <--> 100%)
16	009 <--> 255	Pixel 3 Blue (0% <--> 100%)
17	009 <--> 255	Pixel 4 Red (0% <--> 100%)
18	009 <--> 255	Pixel 4 Green (0% <--> 100%)
19	009 <--> 255	Pixel 4 Blue (0% <--> 100%)
20	009 <--> 255	Pixel 5 Red (0% <--> 100%)
21	009 <--> 255	Pixel 5 Green (0% <--> 100%)
22	009 <--> 255	Pixel 5 Blue (0% <--> 100%)
23	009 <--> 255	Pixel 6 Red (0% <--> 100%)
24	009 <--> 255	Pixel 6 Green (0% <--> 100%)
25	009 <--> 255	Pixel 6 Blue (0% <--> 100%)
26	009 <--> 255	Pixel 7 Red (0% <--> 100%)
27	009 <--> 255	Pixel 7 Green (0% <--> 100%)
28	009 <--> 255	Pixel 7 Blue (0% <--> 100%)
29	009 <--> 255	Pixel 8 Red (0% <--> 100%)
30	009 <--> 255	Pixel 8 Green (0% <--> 100%)
31	009 <--> 255	Pixel 8 Blue (0% <--> 100%)
32	009 <--> 255	Pixel 9 Red (0% <--> 100%)
33	009 <--> 255	Pixel 9 Green (0% <--> 100%)
34	009 <--> 255	Pixel 9 Blue (0% <--> 100%)

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DMX Values In-Depth (16-Channel Mode)

Channel	Value	What It Does
1	009 <--> 255	Dimmer (0% <--> 100%)
2	010 <--> 249	Strobe (0% <--> 100%)
3	000 <--> 009 010 <--> 012 013 <--> 016 017 <--> 020 021 <--> 024 025 <--> 028 029 <--> 032 033 <--> 036 037 <--> 044 045 <--> 048 049 <--> 052 053 <--> 056 057 <--> 060 061 <--> 064 065 <--> 068 069 <--> 072 073 <--> 075 076 <--> 077 078 <--> 079 080 <--> 089 090 <--> 105 106 <--> 121 122 <--> 137 138 <--> 169 170 <--> 185 186 <--> 201 202 <--> 217 218 <--> 233 234 <--> 249 250 <--> 255	No Function Red Green Blue Red+Green Blue+Green Red+Blue R+G+B (White) 7 Color Snap Red Fade In/Out Green Fade In/Out Blue Fade In/Out R+G+B (White) Fade In/Out 7 Color Fade R+G+B (White) Fade/Snap R+G+B (White) Fade In/Out Pixel Effect 1 Pixel Effect 2 Pixel Effect 3 Pixel Effect 4 Pixel Effect 5 Pixel Effect 6 Pixel Effect 7 Pixel Effect 8 Pixel Effect 9 Pixel Effect 10 Pixel Effect 11 Pixel Effect 12 Pixel Effect 13 Blackout
4	000 <--> 255	Speed (Slow <--> Fast)
5	009 <--> 255	Red (0% <--> 100%)
6	009 <--> 255	Green (0% <--> 100%)
7	009 <--> 255	Blue (0% <--> 100%)
8	009 <--> 255	Pixel 1/2/3 Red (0% <--> 100%)
9	009 <--> 255	Pixel 1/2/3 Green (0% <--> 100%)
10	009 <--> 255	Pixel 1/2/3 Blue (0% <--> 100%)
11	009 <--> 255	Pixel 4/5/6 Red (0% <--> 100%)
12	009 <--> 255	Pixel 4/5/6 Green (0% <--> 100%)
13	009 <--> 255	Pixel 4/5/6 Blue (0% <--> 100%)
14	009 <--> 255	Pixel 7/8/9 Red (0% <--> 100%)
15	009 <--> 255	Pixel 7/8/9 Green (0% <--> 100%)
16	009 <--> 255	Pixel 7/8/9 Blue (0% <--> 100%)

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DMX Values In-Depth (7-Channel Mode)

Channel	Value	What It Does
1	009 <--> 255	Dimmer (0% <--> 100%)
2	010 <--> 249	Strobe (0% <--> 100%)
3	000 <--> 009 010 <--> 012 013 <--> 016 017 <--> 020 021 <--> 024 025 <--> 028 029 <--> 032 033 <--> 036 037 <--> 044 045 <--> 048 049 <--> 052 053 <--> 056 057 <--> 060 061 <--> 064 065 <--> 068 069 <--> 072 073 <--> 075 076 <--> 077 078 <--> 079 080 <--> 089 090 <--> 105 106 <--> 121 122 <--> 137 138 <--> 169 170 <--> 185 186 <--> 201 202 <--> 217 218 <--> 233 234 <--> 249 250 <--> 255	No Function Red Green Blue Red+Green Blue+Green Red+Blue R+G+B (White) 7 Color Snap Red Fade In/Out Green Fade In/Out Blue Fade In/Out R+G+B (White) Fade In/Out 7 Color Fade R+G+B (White) Fade/Snap R+G+B (White) Fade In/Out Pixel Effect 1 Pixel Effect 2 Pixel Effect 3 Pixel Effect 4 Pixel Effect 5 Pixel Effect 6 Pixel Effect 7 Pixel Effect 8 Pixel Effect 9 Pixel Effect 10 Pixel Effect 11 Pixel Effect 12 Pixel Effect 13 Blackout
4	000 <--> 255	Speed (Slow <--> Fast)
5	009 <--> 255	Red (0% <--> 100%)
6	009 <--> 255	Green (0% <--> 100%)
7	009 <--> 255	Blue (0% <--> 100%)

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DMX Values In-Depth (4-Channel Mode)

Channel	Value	What It Does
1	009 <--> 255	Dimmer (0% <--> 100%)
2	010 <--> 249	Strobe (0% <--> 100%)
3	000 <--> 009	No Function
	010 <--> 012	Red
	013 <--> 016	Green
	017 <--> 020	Blue
	021 <--> 024	Red+Green
	025 <--> 028	Blue+Green
	029 <--> 032	Red+Blue
	033 <--> 036	R+G+B (White)
	037 <--> 044	7 Color Snap
	045 <--> 048	Red Fade In/Out
	049 <--> 052	Green Fade In/Out
	053 <--> 056	Blue Fade In/Out
	057 <--> 060	R+G+B (White) Fade In/Out
	061 <--> 064	7 Color Fade
	065 <--> 068	R+G+B (White) Fade/Snap
	069 <--> 072	R+G+B (White) Fade In/Out
	073 <--> 075	Pixel Effect 1
	076 <--> 077	Pixel Effect 2
	078 <--> 079	Pixel Effect 3
	080 <--> 089	Pixel Effect 4
	090 <--> 105	Pixel Effect 5
	106 <--> 121	Pixel Effect 6
	122 <--> 137	Pixel Effect 7
	138 <--> 169	Pixel Effect 8
	170 <--> 185	Pixel Effect 9
	186 <--> 201	Pixel Effect 10
	202 <--> 217	Pixel Effect 11
	218 <--> 233	Pixel Effect 12
	234 <--> 249	Pixel Effect 13
	250 <--> 255	Blackout
4	000 <--> 255	Speed (Slow <--> Fast)

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5. APPENDIX

A Quick Lesson On DMX

DMX covers (and is an abbreviation for) Digital MultipleXed signals. It is the most common communications standard used by lighting and related stage equipment.

DMX provides up to 512 control "channels" per data link. Each of these channels was originally intended to control lamp dimmer levels. You can think of it as 512 faders on a lighting console, connected to 512 light bulbs. Each slider's position is sent over the data link as an 8-bit number having a value between 0 and 255. The value 0 corresponds to the light bulb being completely off while 255 corresponds to the light bulb being fully on.

DMX data is transmitted at 250,000 bits per second using the RS-485 transmission standard over two wires. As with microphone cables, a grounded cable shield is used to prevent interference with other signals.

There are five pins on a DMX connector: a wire for ground (cable shield), two wires for "Primary" communication which goes from a DMX source to a DMX receiver, and two wires for a "Secondary" communication which goes from a DMX receiver back to a DMX source. Generally, the "Secondary" channel is not used so data flows only from sources to receivers. Hence, most of us are most familiar with DMX-512 as being employer over typical 3-pin "mic cables," although this does not conform to the defined standard.

DMX is connected using a daisy-chain configuration where the source connects to the input of the first device, the output of the first device connects to the input of the next device, and so on. The standard allows for up to 32 devices on a single DMX link.

Each receiving device typically has a means for setting the "starting channel number" that it will respond to. For example, if two 6-channel fixtures are used, the first fixture might be set to start at channel 1 so it would respond to DMX channels 1 through 6, and the next fixture would be set to start at channel 7 so it would respond to channels 7 through 12.

Troubleshooting

Symptom	Solution
Fixture Auto-Shut Off	Check the fan in the fixture. If it is stopped or moving slower than normal, the unit may have shut itself off due to high heat. This is to protect the fixture from overheating. Clear the fan of obstructions, or return the unit for service.
Beam is Dim	Check optical system and clean excess dust/grime. Also ensure that the 220V/110V switch is in the correct position, if applicable.
No Light Output	Check to ensure fixture is operating under correct mode, IE sound active/auto/DMX/Etc., if applicable. Contact service for more information.
Chase Speed Too Fast/Slow	Check to ensure proper setup of speed adjustment.
No Power	Check fuse, AC cord and circuit for malfunction.
No Response to Audio	Verify that the fixture is in "Sound Active" mode. Adjust Audio Sensitivity, If Applicable.
Fixture Not Responding / Responding Erratically	Make sure all connectors are seated properly and securely. Use Only DMX Cables. Install a Terminator. Check all cables for defects. Reset fixture(s).

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Keeping Your PixelStorm™ As Good As New

The fixture you've received is a rugged, tough piece of pro lighting equipment, and as long as you take care of it, it will take care of you. That said, like anything, you'll need to take care of it if you want it to operate as designed. You should absolutely keep the fixture clean, especially if you are using it in an environment with a lot of dust, fog, haze, wild animals, wild teenagers or spilled drinks.

Cleaning the optics routinely with a suitable glass cleaner will greatly improve the quality of light output. Keeping the fans free of dust and debris will keep the fixture running cool and prevent damage from overheating.

In transit, keep the fixtures in cases. You wouldn't throw a prized guitar, drumset, or other piece of expensive gear into a gear trailer without a case, and similarly, you shouldn't even think about doing it with your shiny new light fixtures.

Common sense and taking care of your fixtures will be the single biggest thing you can do to keep them running at peak performance and let you worry about designing a great light show, putting on a great concert, or maximizing your client's satisfaction and "wow factor." That's what it's all about, after all!

Returns (Gasp!)

We've taken a lot of precautions to make sure you never even have to worry about sending a defective unit back, or sending a unit in for service. But, like any complex piece of equipment designed and built by humans, once in a while, something doesn't go as planned. If you find yourself with a fixture that isn't behaving like a good little fixture should, you'll need to obtain a Return Authorization (RA).

Don't worry, this is easy. Just send an email to support@blizzardlighting.com, and we'll issue you an RA. Then, you'll need to send the unit to us using a trackable, pre-paid freight method. We suggest using USPS Priority or UPS. Make sure you carefully pack the fixture for transit, and whenever possible, use the original box & packing for shipping.

When returning your fixture for service, be sure to include the following:

1.) Your contact information (Name, Address, Phone Number, Email address).
2.) The RA# issued to you
3.) A brief description of the problem/symptoms.

We will, at our discretion, repair or replace the fixture. Please remember that any shipping damage which occurs in transit to us is the customer's responsibility, so pack it well!

Shipping Issues

Damage incurred in shipping is the responsibility of the shipper, and must be reported to the carrier immediately upon receipt of the items. Claims must be made within seven (7) days of receipt.

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Tech Specs!

Weight & Dimensions	
Length	21.25 inches (550 mm)
Width	5 inches (127 mm)
Height	2.5 inches (63 mm)
Weight	6.7 lbs (3 kg)
Power	
Operating Voltage	90-230VAC, 50-60 Hertz
Power Consumption	35W
Light Source	
LED	9* 3-watt Tri-Color LEDs, 100,000 hours
Optical	
Beam Angle	25 degree optics standard 25 degree beam 29 degree field
Thermal	
Max. Operating Temp.	104 degrees F (40 degrees C) ambient
Control	
Protocol	USITT DMX-512
DMX Channels	34/16/7/4 Channels
Input	3/5-pin XLR Male
Output	3/5-pin XLR Female
Other Operating Modes	Standalone, Master/Slave, Color Preset
Coolness Factor	
Leventy Billion Percent	
Warranty	2-year limited warranty, does not cover malfunction caused by damage to LED's.

DISCLAIMER:
The power connector fitted to the fixture and fixture cord are designed for compatibility with products manufactured by Neutrik AG, Neutrik USA and their related entities, however they are not manufactured by, affiliated with or endorsed by Neutrik AG, Neutrik USA, or any related entity. Neutrik® and powerCON® are registered trademarks of Neutrik AG.

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Enjoy your product!
Our sincerest thanks for your purchase!
--The team @ Blizzard Lighting